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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,024	04/08/2004	Masaaki Oyamada	0092/012001	7572
22893	7590	09/25/2006	EXAMINER	
SMITH PATENT OFFICE 1901 PENNSYLVANIA AVENUE N W SUITE 901 WASHINGTON, DC 20006			TSOY, ELENA	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,024

Applicant(s)

OYAMADA ET AL.

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5-7 and 9-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,5-7 and 9-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

1. Amendment filed on August 14, 2006 has been entered. Claims 1-2, 4, and 8 have been cancelled. New claims 11-34 have been added. Claims 3, 5-7, 9-34 are pending in the application.

Claim Objections

Claims 16, 33, and 34 are objected to because of the following informalities: "electroless plating powder" in Claims 16, 33, and 34 should be changed to "electroless plated powder"; "forming a gold plating layer" in Claims 33 and 34 should be changed to "forming a gold plated layer".

Double Patenting

Provisional rejection of Claims 3-10 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3-15 of copending Application No. 10/820,025 in view of Henry et al (US Patent No. 6,156,390) has been withdrawn due to filing a terminal disclaimer.

Claim 3 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of U.S. Patent No. 6,770,369 in view of Weber et al for the reasons of record set forth in the Office Action mailed on 5/12/2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 7, 10-11, 14-24, 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al. (US Patent No. 6,274,241).

Weber et al are applied here for the same reasons as set forth in the Office Action mailed on 5/12/2006. Weber et al fail to teach adjusting concentrations of components used, as required by Amendment and specific concentration limitations of new claims. However, it is held that generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant concentration parameters (including those of claimed invention) in Weber et al through routine experimentation in the absence of showing of criticality.

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As to claim 16, It is the Examiner's position that the crystal in the nickel film of Weber et al formed on the surface of the core particle has a columnar structure primarily extending in the direction of the thickness of the film since it is prepared by a method substantially identical to that of claimed invention.

As to claims 33-34, Weber et al teach that in addition to the Ni/W alloy, layers including alloys such as Ni/Sn, Co/W and Co/Mo, a single metal such as Ni, Cu, Ag, Au and platinum metals or metal oxide(s) such as CuO and Cu₂O can also be applied with similarly advantageous properties to the nucleation layer according to the present invention (See column 5, lines 45-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a combination of layers of different metals on the core particles, e.g. a layer of gold on top of Ni layer depending on particular use of a final product because Weber et al teach that layers of any of recited metals can be deposited using their method.

Claims 4-6, 9, 12-24, and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al in view of Henry et al (Us Patent No. 6,156,390) for the reasons of record set forth in the Office Action mailed on 5/12/2006.

As to claim 14 and 16, Weber et al are applied here for the same reasons as for claim 9.

Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al/Weber et al in view of Henry et al/ in view of Vincent et al (US 3,489,576).

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Weber et al/Weber et al in view of Henry et al/ are applied here for the same reasons as above. Weber et al Weber et al in view of Henry et al/ fail to teach that glycine is used as the complexing agent.

However, Vincent et al teach that it is desirable to add to a nickel plating bath containing thiocompounds such as thiourea (See column 1, lines 45-56) a chelating agent such as glycine which functions to maintain the nickel in solution by forming a soluble *complex* ion (claimed complexing agent), with at least a portion of the nickel (See column 2, lines 59-68). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added glycine to a nickel bath in Weber et al/Weber et al in view of Henry et al/ with the expectation of maintaining the nickel in a solution by forming a soluble *complex* ion with at least a portion of the nickel, as taught by Vincent et al.

Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al in view of Filas et al (US 5380559).

Weber et al are applied here for the same reasons as above. Weber et al fail to teach that a gold plated layer is formed on top of the nickel film.

Filas et al teach that a thin protective layer of gold can be formed by electroless plating on top of electroless nickel (See column 2, lines 44-50; column 6, lines 9-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed a layer of gold on top of Ni layer in Weber et al depending on particular use of a final product because Weber et al teach that layers of

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any of recited metals can be deposited using their method, and Filas et al teach that a thin protective layer of gold can be formed by electroless plating on top of electroless nickel.

Response to Arguments

Applicant's arguments with respect to claims 3, 5-7, and 9-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429.

The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy
Primary Examiner
Art Unit 1762

ELENA TSOY
PRIMARY EXAMINER
ETsoy

September 18, 2006